(Practitioner's Docket No. IN-5553CP/BC1-0063)

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below.

1. (Currently Amended) A method for making a solventborne coating material comprising:

I) copolymerizing a mixture of olefinically unsaturated monomers comprising

a1) from 1 to 90% by weight, based on the mixture, of at least one cycloaliphatic monomer and

a2) from 0 to 90% by weight, based on the mixture, of at least one hydroxyl-containing monomer,

the amounts of the olefinically unsaturated monomers adding up to 100% by weight,

in at least one hydroxyl-containing reactive diluent comprising a polyol to form a reaction product; and

II) blending

A) from 5 to 70% by weight, based on the solids content of the coating material, of the reaction product;

B) from 5 to 70% by weight, based on the solids content of the coating material, of at least one hydroxyl-containing polyaddition resin with a number-average molecular weight Mn of from 800 to 3500 and

C) from 5 to 70% by weight, based on the solids content of the coating material, of at least one thermal crosslinking agent;

the amounts of the constituents (A), (B) and (C) adding up to 100% by weight.

2. (Original) The method of claim 1, wherein the mixture is copolymerized at a polymerization solid of at least 70% by weight, based on the olefinically unsaturated monomers.

(Practitioner's Docket No. IN-5553CP/BC1-0063)

3. (Currently Amended) The method of claim 1, wherein the reaction product has an OH number of from 100 to 250 mg KOH/g, an ~~arithmetic~~ glass transition temperature ~~according to Fox~~ of from –25 to +85°C, and a viscosity of < 100 dPas in a 70 percent strength solution.

4. (Original) The method of claim 1, wherein the cycloaliphatic monomer is at least one of cyclohexyl acrylate, cyclohexyl methacrylate, cyclohexyl ethacrylate, cyclohexyl crotonate, isobornyl acrylate, isobornyl methacrylate, isobornyl ethacrylate, isobornyl crotonate, dicyclopentadienyl acrylate, dicyclopentadienyl methacrylate, dicyclopentadienyl ethacrylate, dicyclopentadienyl crotonate, octahydro-4,7-methano-1H-indenemethanol acrylate, octahydro-4,7-methano-1H-indenemethanol methacrylate, octahydro-4,7-methano-1H-indenemethanol ethacrylate, octahydro-4,7-methano-1H-indenemethanol crotonate, tert-butylcyclohexyl acrylate, tert-butylcyclohexyl methacrylate, tert-butylcyclohexyl ethacrylate, tert-butylcyclohexyl crotonate, 1,4-bis(hydroxymethyl)cyclohexane monoacrylate, 1,4-bis(hydroxymethyl)cyclohexane monomethacrylate, 1,4-bis(hydroxymethyl)cyclohexane monoethyacrylate, 1,4-bis(hydroxymethyl)cyclohexane monocrotonate, octahydro-4,7-methano-1H-indenedimethanol monoacrylate, octahydro-4,7-methano-1H-indenedimethanol monomethacrylate, octahydro-4,7-methano-1H-indenedimethanol monoethacrylate, and octahydro-4,7-methano-1H-indenedimethanol monocrotonate.

5. (Canceled)

6. (Original) The method of claim 5, wherein the polyols comprise at least one of:

i) hyperbranched compounds containing a tetrafunctional central group that is at least one of i) derived from at least one of ditrimethylolpropane, diglycerol, and ditrimethylolethane, and ii) a tetrafunctional central group of the general formula I

$$C[-A_q-X-]_m[-A_r-X-]_n[-A_s-X-]_o[-A_t-X-]_p \quad (I),$$

wherein:

m + n + o + p = 4;

m is an integer from 1 to 3,

n, o, and p are each independently an integer from 0 to 3;

q, r, s, and t are each independently an integer from 1 to 5,

$q \geq r$, $q \geq s$, $q \geq t$;

X is at least one of -O-, -S-, and -NH-;

A is $-CR_2-$;

R is at least one of -H; -F; -Cl; -Br; -CN; $-NO_2$; C_1-C_3 alkyl; C_1-C_3 haloalkyl; C_1-C_3 alkoxy radical; a C_2-C_4 alkanediyl radical having 2 to 5 carbon atoms when at least one of q, r, s, and t is at least 2; an oxaalkanediyl radical having 2 to 5 carbon atoms when at least one of q, r, s, and t is at least 2; and an oxygen atom -O- which bridges from 3 to 5 carbon atoms of the radical -A- when at least one of q, r, s, and t is at least 2;

ii) branched oligoesters comprising a reaction product of at least one branched polycarboxylic acid with at least one monoepoxy ester;

iii) at least one of cyclic C_9-C_{16} alkanes and acyclic C_9-C_{16} alkanes, wherein the cyclic C_9-C_{16} alkanes and the acyclic C_9-C_{16} alkanes are functionalized with at least two hydroxyl groups or at least one hydroxyl group and at least one thiol group;

and

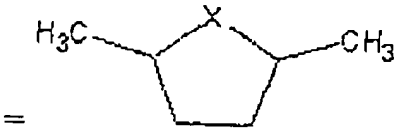
iv) a hydroformylation product of oligomers of the formula III

$$R^3R^4C=[=CH-R^2-CH=]_v=CR^5R^6 \quad (III),$$

wherein:

R^2 is $-(-CH_2-)_w-$, w is an integer from 1 to 6,

or R^2 is



X is $-CH_2-$ or an oxygen atom;
R^3, R^4, R^5, and R^6 independently of one another are hydrogen atoms or alkyl; and
v is an integer from 1 to 15.

7. (Original) The method of claim 6, wherein the polyols are at least one of

i) a hyperbranched compound comprising a reaction product of an intermediate with glycidyl esters of tertiary, branched, saturated monocarboxylic acids, wherein the intermediate comprises a reaction product of 2,2-bishydroxymethyl-butane-1,4-diol with a dicarboxylic anhydride,

ii) positionally isomeric dialkyloctanediols, and

iii) hydroformylated and hydrogenated oligomers prepared by a process comprising:

a) metathesis reacting acyclic monoolefins and cyclic monoolefins to form oligomers,

b) hydroformylating the oligomers, and

c) hydrogenating the oligomers,

wherein the cyclic monoolefin comprises cyclopentene and the acyclic monoolefin comprises C_5 cut hydrocarbon mixtures obtained in petroleum processing by cracking,

wherein the polyols comprising the hydroformylated and hydrogenated oligomers have a hydroxyl number (OHN) from 200 to 650, a number-average molecular weight M_n of from 400 to 1000, a mass-average molecular weight M_w in the range from 600 to 2000, and a polydispersity M_w/M_n of from 1.4 to 3.

8. (Original) The method of claim 1, wherein the polyaddition resin is branched and is at least one of an oligoether, an oligoester, an oligocarbonate, an oligourethane, an oligourea, an oligoamide, an oligoimide, and a cooligomer; wherein the cooligomer, in at least one of the oligomer and the oligomer chain, contains at least two groups selected from the group consisting of ether, ester, carbonate, urethane, urea, amide, and imide.

9. (Currently Amended) The method of claim 8, wherein the polyaddition resingresin is an oligoadduct that is branched and is at least one of oligomeric oligoesters, oligourethanes, oligoester-co-oligoethers, oligoester-co-oligocarbonates, oligoester-co-oligourethanes, oligoester-co-oligoamides, oligoester-co-oligoureas and oligoester-co-oligoimides.

10. (Original) The method of claim 9, wherein the oligoester comprises at least one of i) a reaction product of at least one branched polycarboxylic acid with at least one monoepoxy ester, and ii) a reaction product of an intermediate with an epoxide, wherein the intermediate is a reaction product of a polyol with a carboxylic anhydride.

11. (Original) The method of claim 10, wherein the polyaddition resin comprises a polyol comprising a hyperbranched compounds containing a tetrafunctional central group that is at least one of i) derived from at least one of ditrimethylolpropane, diglycerol, and ditrimethylolethane, and ii) a tetrafunctional central group of the general formula I

$$C[-A_q-X-]_m[-A_r-X-]_n[-A_s-X-]_o[-A_t-X-]_p \quad (I),$$

wherein:

$m + n + o + p = 4$;

m is an integer from 1 to 3,

n, o, and p are each independently an integer from 0 to 3;

q, r, s, and t are each independently an integer from 1 to 5,

$q \geq r$, $q \geq s$, $q \geq t$;

X is at least one of -O-, -S-, and -NH-;

A is $-CR_2-$;

R is at least one of -H; -F; -Cl; -Br; -CN; $-NO_2$; C_1-C_3 alkyl; C_1-C_3 haloalkyl; C_1-C_3 alkoxy radical; a C_2-C_4 alkanediyl radical having 2 to 5 carbon atoms when at least one of q, r, s, and t is at least 2; an oxaalkanediyl radical having 2 to 5 carbon atoms when at least one of q, r, s, and t is at least 2; and an oxygen atom -O- which bridges from 3 to 5 carbon atoms of the radical -A- when at least one of q, r, s, and t is at least 2;.

12. (Original) The method of claim 1, wherein the coating material is crosslinkable by one of i) thermally or ii) both thermally and with actinic radiation.